

DATE OUT: 5/MAY/2005

SUBJECT : PRODUCT CHEMISTRY REVIEW OF: Technical Product [x]; Manufacturer-Use Product [x];
End-Use Product []; Data Package No. : 315589; EPA RECEIVED DATE: 5/APR/05; EPA REG. No.: 62719-399;
PRODUCT NAME: Goal Technical Purified Herbicide; **COMPANY NAME:** Dow AgroSciences LLC; **MRIDs #:**
448289-01, -02, and 447202-01; **Action Code:** 674

FROM: Paul Horng, Ph. D., Environmental Scientist
Product Reregistration Branch
Special Review and Reregistration Division (7508C)
Office of Pesticide Programs

Paul Horng

TO: Bonnie Adler, CRM
Product Reregistration Branch
Special Review and Reregistration Division (7508C)
Office of Pesticide Programs

INTRODUCTION:

The registrant, Dow AgroSciences LLC, submitted the generic product chemistry data in MRIDs # 447202-01, 448289-01 & -02; the Confidential Statement of Formula, a basic formulation dated 16/FEB/2005; and a product label received by the Agency on 25/FEB/2005; requesting for reregistration of Goal Technical Purified Herbicide, EPA Reg. No. 62719-399

FINDINGS:

1 (a). Except for the data gaps noted in the Finding # 1(b), the submitted data in MRID # 448289-01 satisfy the data requirements for Guidelines 61-1 (830-1550, Product Identity and Composition), 61-2a (830-1600, Description of Materials Used to Produce the Product), 61-2b (830-1620, Description of Manufacturing Process), 61-3 (830-1670, Discussion of Formation of Impurities), 62-1 (830-1700, Preliminary Analysis), 62-2 (830-1750, Certified Limits), and 62-3 (830-1800, Enforcement Analytical Method). The submitted data in MRID # 448289-02 fulfill the data requirement for the Guidelines 63-2 (830-6302, Color), 63-3 (830-6303, Physical State), 63-4 (830-6304, Odor), 63-6 (830-7200, Melting Point), 63-7 (830-7300, Density/Bulk Density), 63-8 (830-7840, Solubility), 63-9 (830-7950, Vapor Pressure), 63-11 (830-7550, -7560, -7570, Octanol/Water Partition Coefficients), 63-12 (830-7000, pH), 63-13 (830-6313, Stability to Elevated Temperature, to Metal and Metallic Ions), 63-14 (830-6314, Oxidation/ Reduction Action), and 830-7050 (UV/Visible Light Absorption).

The data requirement for the Guidelines 63-10 (830-7370, Dissociation Constant in Water), 63-15 (830-6315, Flammability), 63-16 (830-6316, Explodability), 63-18 (830-7100, Viscosity), 63-19 (830-6319, Miscibility), and 63-21 (830-6321, Dielectric Breakdown Voltage) are not applicable to the product and are waived.

1 (b). Data requirement pertains to the Guidelines 63-13 (830-6313, Stability to Normal Temperature and Sunlight), 63-17 (830-6317, Storage Stability) and 63-20 (830-6320, Corrosion Characteristics) remain outstanding.

2. The submitted CSF, a basic formulation dated 16/FEB/2005, has been filled out completely and correctly. The nominal concentration of the active ingredient in the CSF agrees with that of the label. The CSF is acceptable.

3. The active ingredient statement and the storage and disposal statement in the draft label are acceptable. The physical and chemical property of the product indicate that the product has no physical or chemical hazard, thus, no such hazard statement on the label is required.

CONCLUSION:

Except the data gaps noted in Findings # 1(b), the registrant has satisfied all product chemistry data requirements for reregistration of this subject product. Once the outstanding data have been submitted and satisfied, the Agency will have no objection to the reregistration of Goal Technical Purified Herbicide, EPA Reg. No. 62719-399.

Group A. Product Identity, Composition, Manufacturing, Certified Limits, and Analytical Method.

Guidelines and description	MRID #	Has the data requirement been fulfilled
830-1550 <u>Product Identity and Composition</u>	448289-01	Yes
830-1600 <u>Description of Materials Used to Produce the Product.</u>	448289-01	Yes
830-1620 <u>Description of Production Process.</u>	448289-01	Yes
830-1670 <u>Discussion of Formation of Impurities</u>	448289-01	Yes
830-1700 <u>Preliminary Analysis.</u>	448289-01	Yes
830-1750 <u>Certified Limits.</u>	448289-01	Yes
830-1800 <u>Enforcement Analytical Method:</u>	448289-01	Yes

Group B: Series 830- Physical and Chemical Properties (40 CFR 158.190)

(GRN)/TITLE 830-	Description.	MRID	Has the Data Requirement Been Fulfilled
-6302 Color.	Brown color; 7YR/6/6. ASTM D1535-89.	448289-02	Yes
-6303 Physical State.	Crystalline solid.	448289-02	Yes
-6304 Odor.	Medicinal typically aromatic, fairly strong.	448289-02	Yes
-6314 Oxidizing/ Reducing Action	When contacted with water, mono-ammonium phosphate, Zinc dust, and potassium permanganate for 24 hours, no significant changes in temperature, or chemical incompatibilities were observed.	448289-02	Yes
-6315 Flammability	N/A, the product contains no combustible liquid. It was not combustion propagated along 200 mm pile within 4 minutes. EEC Method A10.	448289-02	Yes
-6316 Explodability	Thermal sensitivity: no explosion was observed and there was no deformation to any of the tubes. Mechanical sensitivity (shock and friction): No visible or audible reaction was recorded. EEC Method A14.	448289-02	Yes
-6317 Storage Stability	Study was underway.	-	No
-6320 Corrosion Characteristics	Study was underway.	-	No
-7000 pH	9.35 (1% aqueous solution at 20°C).	448289-02	Yes
-7100 Viscosity	N/A, the product is not a liquid.	N/A	Waived
- 7200 Melting Point	84.5-86°C. OECD Method 102 or EEC Method A1	448289-02	Yes
-7300 Density	D ₄ ²⁰ = 1.53 g/ml. OECD Method 109 or EEC Method A3	448289-02	Yes
- 7373 Dissociation Constant in Water	N/A, the product is neither acid nor base. No dissociation constant could be measured.	N/A	Waived
-7570 Partition Coefficient (Octanol/Water)	2.94 x 10 ⁻⁴ . Modified shake flask method.	448289-02	Yes
- 7840 Solubility (in water and organic solvents)	Solubility to water 0.116 ppm HPLC elution method. Solubility to solvents (g/l): EEC Method A6. methanol, 30; acetone 134; ethyl acetate: 132; xylene: >250; n-octanol: 10.1; n-heptane: 3.8 ; dichloroethane: >250.	448289-02	Yes
-7950 Vapor Pressure	3.54 x 10 ⁻⁷ torr at 25°C. 9.78 x 10 ⁻⁷ torr at 32°C. 2.8 x 10 ⁻⁶ torr at 44°C.	448289-02	Yes
-7050 UV/Visible Light Absorption	medium λ Max nm Absorbance Molar Absorption Coeff. neutral 275 0.873 6135 acid 273 0.893 6276 base 273 0.917 6445	448289-02	Yes
-6313 Stability to Normal and Elevated Temperature; Sunlight; and Metals Metal Ions	The test substance 20 g was placed in each of two 250 ml beakers. Four duplicates were prepared for each duplications containing test substance and metal or metal ions [316 carbon steel 1 100 mesh; carbon steel; iron III and Iron II (ions)] at 9:1 (w/w) ratio. A screw-cap jar was placed on the top of the disc containing lead shot to exert a pressure of 25g/cm ² on the test substance. The samples were placed into a thermostatically controlled oven at 54°C for 14 days. The results were shown below: The recovery of the active ingredient (oxyfluorfen) at 0 and after 14 days was 101.4% and 99.5%, respectively, with a mean recovery 99.8%. The recovery of the active ingredient after contact with stainless steel, carbon steel, Iron III ions and Iron II ions at 54°C for 14 days were 99.9%, 103.3%, 104.8%, and 99.6%, respectively.	448289-02	Data for stability to sunlight, and normal temperature, to metals and metal ions are required. This can be satisfied with Guidelines 63-17 and 63-20.

